

GLOBAL INNOVATORS SERIES

COMPUTERWORLD

June 9, 1997

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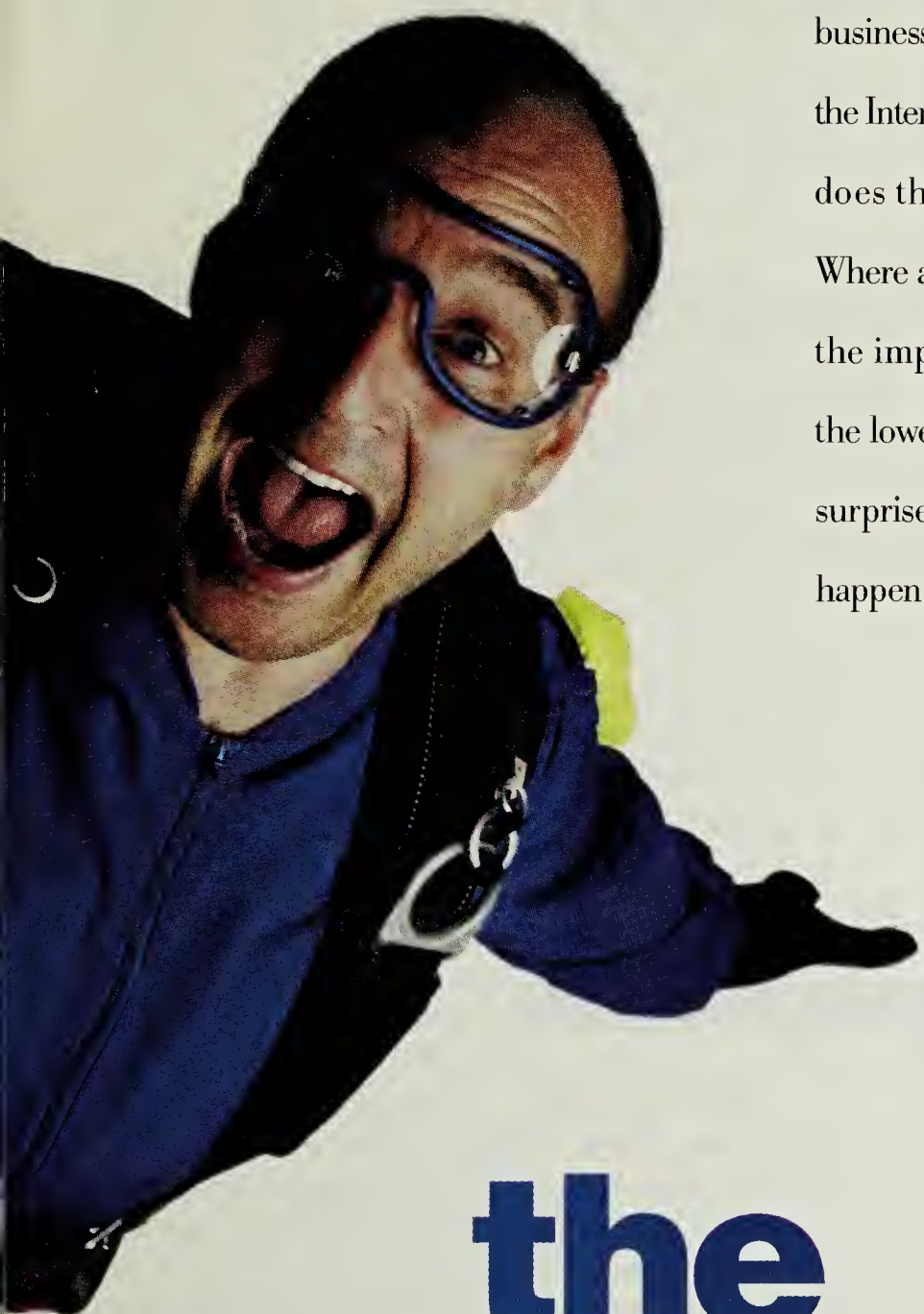
CUSTOMER SERVICE

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THE SUPPORT BURDEN

Whether customer or vendor, global support
— especially software — is a tough haul





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Bearing World Burdens

For nearly a decade, much ado has been made of customer loyalty. Companies have dumped millions into their customer service systems to effectively answer and even anticipate customer questions, fix problems and create solutions. In its annual survey of IS management issues last year, Computer Sciences Corp. found customer service to be the No. 1 initiative for the majority of new systems development in North America and Europe.

But after all these years, companies that have mastered customer service are still the exception — certainly not the rule. Even with state-of-the-art call centers, 24-hour availability of Web-based help systems and problem-sharing systems, you still need to instill an "attitude" of service and find a way to motivate support representatives. IT plays a major role, but somewhere along the way science must give way to charisma.

The game gets tougher for global companies with customers around the world. With the trend toward call center consolidation, they tangle with multilingual call-routing systems, multiple countries' telecom and currency systems and cultural differences that refuse to be mollified.

It doesn't get any easier on the receiving end, particularly when it comes to software support. Software providers have done a good job gaining international accounts, but they're still wrestling with worldwide support. The biggest issue: finding business models that enable local service providers to share in the revenue.

In this issue, we explore how global innovators are alleviating their support burden. From the sounds of it, there's still lots of work to be done.



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w o r l d

Global Net Knits East to West at Liz Claiborne

APPAREL GIANT
LINKS U.S. DESIGNERS
WITH MILLS
IN HONG KONG

BY SARI KALIN

What do you do if your Manhattan model can't fit into a factory sample garment that just came in from Hong Kong? If you're Liz Claiborne, Inc., a \$2 billion apparel and accessories giant based in the U.S., information technology has a lot to do with the answer.

Three years ago, North Bergen, N.J.-based Liz Claiborne faced a problem similar to that confronting other U.S. garment makers. Designs originate in the U.S., but production is often farmed out overseas. Keeping tabs on product timing and quality is a challenge when contract mills and factories are a dozen or so time zones away. And trimming cycle times is a must, both to cut down excess inventory and to have more time to concentrate on new fashions.

Liz Claiborne was also facing declining profits. According to company officials, the company had stagnated, both in design

work and business practices. Inventories were high, and the time was ripe for a top-down change. The result: LizFirst, a project intended to transform the company into one that's first in responsiveness, service and total value. A critical piece of that project was an investment in IT, according to John Thompson, Liz Claiborne's chief information officer.

The major goals of LizFirst were to reduce excess inventory by 50%, reduce cycle time in major business processes by 25%, increase responsiveness to customers and improve timeliness and accuracy in shipments.

Two years into the project, the company is about 70% of the way toward its goal of slashing \$100 million in operating costs. It is also meeting cycle time reductions in most of its business processes, Thompson said. The savings have come primarily from payroll management, renegotiated freight agreements, facilities management and licensed divisions.

A key component of LizFirst was to streamline textile production and develop garment patterns and specifications in a standard format. Before the project, a great deal of the design process was manual, according to Kathryn Shipman,

view

TRENDS, ISSUES AND IDEAS FROM AROUND THE GLOBE

director of corporate computer-aided design (CAD). But time is of the essence: Because most of Liz Claiborne's divisions create fashion lines four seasons a year, they must work in three-month time periods. "There are many processes that are being broken down into shorter cycles, so we have more time to research better designs," Shipman said. "We are reallocating our time."

Today, a global network knits together designers on the East Coast with manufacturing representatives in the Far East. For textile design, Liz Claiborne standardized on U4ia from Computer Design, Inc. in Grand Rapids, Mich., as its CAD package, Shipman said. The software was installed in all its divisions last year.

CAD images are shipped to manufacturing offices in Asia over an ISDN connection, through a pilot project with DuPont ESnet, a subsidiary of DuPont Co. Several ISDN lines

are combined to offer speeds of up to 448K bit/sec., Shipman said. Where ISDN service is not available, the images are sent over analog lines at rates up to 90K bit/sec., she said.

For the pilot, local Liz Claiborne staffers bring tape copies of the CAD files to factories that use CAD or print them out for factories that don't. Ultimately, Liz Claiborne would like to see the images delivered to the mills, Shipman said.

MAKING IT FIT

Liz Claiborne also uses the DuPont ESnet service to facilitate "fit sessions," during which a live model tries on a factory garment. Before, if a sample from Hong Kong was too big on a model in Manhattan, designers had to write out detailed instructions describing which alterations to make. Now, Shipman said, designers can snap a digital photo of the garment, annotate it in U4ia and then, using DuPont ESnet's Image

Link software, send the image to the manufacturing office. They can also shoot a video clip to show a tricky alteration.

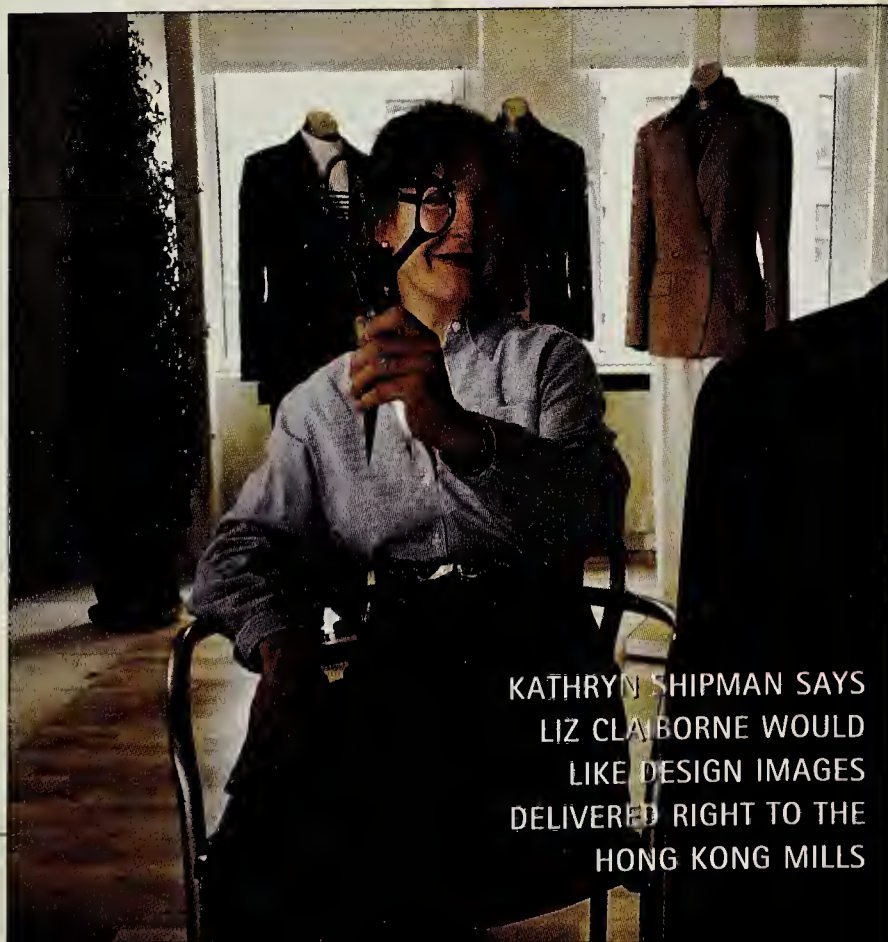
To standardize pattern specs, Liz Claiborne has begun rolling out Style Manager by Animated Images, Inc. in Camden, Maine. This software combines a vector-based drawing package with an Oracle Corp. database for storing pattern designs and specifications. All information needed to produce a particular style, such as color and fabric, starts in Style Manager.

Now, under a pilot that began early last year in two of the nine apparel divisions, manufacturing reps, design liaisons and the mills in Asia can access the files stored on a Hewlett-Packard Co. HP 9000 server in New Jersey via their desktop PCs, using a frame-relay service offered by Infonet Services Corp. These staffers work with manufacturing and product development staffers in the U.S. to ensure Liz Claiborne gets the quality it needs from its contracted factories in the region.

"As we implement Style Manager, they will have access to that data any time they need it," said Tim Loftus, data communications manager at Liz Claiborne. "They won't have to wait for an E-mail, which can take a long time, especially with the time difference."

Liz Claiborne also uses Infonet's frame-relay service, a recent major upgrade of its connectivity in the region, for applications such as electronic mail and faxing, Loftus said.

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KATHRYN SHIPMAN SAYS LIZ CLAIBORNE WOULD LIKE DESIGN IMAGES DELIVERED RIGHT TO THE HONG KONG MILLS

EDWARD SANTALONE

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The hub in Hong Kong is connected to Infonet's frame-relay network, as are offices in Taiwan; Djakarta, Indonesia; and North Bergen, N.J., said Robert DaGiau, Infonet's vice president of transport services. In countries such as Sri Lanka, where the telecom infrastructure is not sophisticated enough to support frame relay, Liz Claiborne is using a direct X.25 connection, DaGiau said. Liz Claiborne's hub in Hong Kong can pass traffic back and forth to the X.25 sites through Infonet's X.25-to-frame-relay gateway.

Over the next year or two, Liz Claiborne hopes to use the frame-relay service to give its 250 workers in the Asia-Pacific region access to electronic data interchange data and other core business systems, Loftus said. Future projects could include building an event management system that is integrated with Style Manager, Thompson said.

Liz Claiborne's efforts seem to be paying off. "They've cut cycle time, they've lowered costs, they've gotten more efficient," said Laurence Leeds, managing director at the Buckingham Research Group in New York. This follows a relative slump from 1991 to 1994. Chief Executive Officer Paul Charron "improved morale in the company and did a hell of a job in revamping the business."

"We're trying to work more closely with our factories, and we're trying to create this collaboration of efforts within Liz Claiborne. We still have a little bit of a ways to go," Liz Claiborne's Loftus added.

KALIN IS AN IDG NEWS
CORRESPONDENT IN BOSTON.

Latin America Gets Caught Up in 'net

STARMEDIA AIMS
FRESH CONTENT AT
LATIN AMERICAN
INTERNET FANS

BY JEFFERY D. ZBAR

When Jack Chen suggested launching an Internet content service in China last fall, partner Fernando Espuelas replied, "Un momento, por favor." Why not Latin America?

After all, it's relatively homogeneous in culture and language. It's also increasingly bonded by PC usage among an upscale market, and it's a place where a single site, if positioned correctly, could cross national borders as easily as the telephone links on which the service would be carried. Furthermore, consumers and government leaders throughout Latin America are starting to embrace information technology and the Internet, Chen said. In 1996, the Internet population there grew to 2 million users.

"Latin Americans are notoriously enthusiastic consumers of technology," Chen said. "Fernando convinced me the growth down there was at least as good if not better than Asia."

Latin America is also vastly underserved by Internet content, as are many non-English-speaking regions. Today, the Internet is at least 95% English language, making it ripe for language-specific content development, he said.

And that's exactly what Chen and Espuelas's service — StarMedia — is all about. The two launched the service in January, styling it after a commercial online service such as America Online but without the network infrastructure, meaning that users need their own Internet service provider (ISP) connections. Since that time, StarMedia has built its user base and hit counts to more than 1 million per month, said Espuelas, who serves as chairman and chief executive officer.

Since January, the company has hired 10 employees, including field sales representatives in

Brazil, Argentina, Colombia and New York, and contracted with Cambridge, Mass.-based BBN Planet to host its site, providing for fast and secure connections. "We can add value on the content side — specifically, content that builds a community where people can be a part of something," Chen said.

Today, that content includes chat rooms; bulletin boards; a financial information system in Spanish and Portuguese; a new "Iemail" electronic-mail system that sends images and post cards; and a channel titled "Yo quiero" (I want it), which solicits suggestions. Users need an ISP connection and at least 2.0 versions of either Microsoft Corp.'s Internet Explorer or Netscape Communications Corp.'s Netscape Navigator to access the site.

Most important, the content

Latin America is VASTLY
UNDERSERVED BY INTERNET CONTENT,
AS ARE MANY NON-ENGLISH-SPEAKING
REGIONS. TODAY, THE INTERNET IS AT
LEAST 95% ENGLISH LANGUAGE.



is fresh — not regurgitated from other sources. “We’re not duplicating something that happened in the U.S. six months ago and saying Latin America can have the bad cousin,” Espuelas said.

At first, the network will target the upscale population and develop specific content for the region’s leading markets, including Brazil, Mexico, Argentina, Colombia and Chile. This amounts to some 15% of the 450 million people in the region, said Jose Chao, former publisher of e3, a Spanish-language consumer electronics magazine.

The growth potential looks promising, Chao said. Good signs include an emerging home computer market and investment in telecommunications, which has resulted in the installation of fiber-optic telephone lines in upscale neighborhoods and business districts. This should help StarMedia gain acceptance and consumer usage in the region, Chao said. ISP subscription fees are also on the decline, dropping from nearly \$300 to \$30 a month in Mexico City, Espuelas said. “That sort of price degradation is very good for us, obviously,” Chen added.

BUMPS IN THE ROAD

The launch has not been without problems. The company has experienced 1,000% growth during the past four months, Chen said, so meeting capacity remains a challenge. Keeping up with traffic and being able to hire talented and bilingual staffers to create the site was offset in part by basing the company in Greenwich, Conn., where both principals were raised.

And although most urban

centers have reliable ISP service that approaches U.S. levels, the market is fragmented with many smaller players, and reliable service can vary by vendor. Further, though telecommunications capacity is growing throughout Latin America, “it’s still more difficult to get additional phone lines [there] than it is in the U.S.,” Chen said.

Chen would not speculate on future expansion beyond Latin America — even China — instead saying the company will focus on refining its first network. China itself presents plenty of obstacles. In addition to the government itself, there are also low PC penetration and language barriers to worry about.

But the potential upside is promising. Being among the first in the market with such a service, StarMedia has captured the “first mover advantage” to lead content and site direction in Latin America, Espuelas said. The next challenge is to continue developing new content channels and to lure advertisers online. The site’s business model depends in part on advertising revenue. So far, two advertisers are booked: Canal Fox and MindQ, a U.S.-based educational software development company.

Whatever happens, Espuelas said, he sees the Internet as a great opportunity waiting to happen for content providers. “It’s the only way a true community can take shape, to be open and free and equally accessible by everyone. We think there’s enormous opportunities for developing markets,” Espuelas said.

ZBAR IS A FREELANCE WRITER IN CORAL SPRINGS, FLA.

WIRED WORLD

NOTES FROM AROUND THE GLOBE

EAST AFRICA

■ There are 500,000 computers in East Africa. Sixty-five percent are in Kenya; the rest are spread equally between Tanzania and Uganda.

■ The annual growth rate of the IT market is 75%. The highest growth is in Uganda.

■ There are 6,000 active Internet

users in Kenya, 2,000 in Uganda and 1,200 in Tanzania. The annual growth rate of Internet usage in the region is 100%.

■ In the past year, Kenya has become the regional headquarters of IBM, Compaq, Dell, Microsoft, Digital, Oracle, Corel and Apple.

SOURCE: UPSTART LTD., AN IDG LICENSEE IN EAST AFRICA

THE RUSSIAN FEDERATION

■ Continued growth of Western companies leaves less space for Russian software in local and export software markets. While Russian companies exported about \$30 million worth of packaged software a few years ago, that has shrunk to less than \$15 million today.

■ Five years ago, there were more than 200,000 programmers in Russia. Today there are 50,000 to 60,000.

■ Only 10 to 20 Russian software companies produce shrink-wrapped software. There are also about 100 to 120 small and midsize companies that produce custom software and 50 to 70 systems integration companies.

■ Software piracy is in the 90% range.

■ About 4,000 to 5,000 students graduate with university degrees in computer science annually. Only 10% find work specializing in computers.

■ A good salary for a Russian programmer is about \$12,000 per year but can vary from \$4,000 to \$24,000 per year.

SOURCE: JEANETTE BORZO, PARIS BUREAU CHIEF, IDG NEWS SERVICE, AND MARC FERRANTI, NEW YORK CORRESPONDENT, IDG NEWS SERVICE

(THESE FIGURES WERE COLLECTED IN 1996 AND ARE BASED ON CONVERSATIONS WITH RUSSIAN RESELLERS, VENDORS, PROGRAMMERS AND ANALYSTS)

ASIA-PACIFIC REGION

■ The Asia-Pacific PC market, excluding Japan, reached more than 7.4M units in 1996, up from more than 5.4M units in 1995. This represents a 36.5% compound annual growth rate (CAGR). Dataquest expects this market to hit more than 9M units and grow by only 22% in '97.

■ Korea, Australia, Taiwan and Hong Kong account for more than half of total regional unit sales annually in the Asia-Pacific region.

■ China was the hottest market in the region, growing by 53% CAGR in '96. It outpaced Australia to become the second-largest market in the region.

■ The Australian PC market slowed, growing only 10% in '96. Taiwan also suffered low growth of 14%.

SOURCE: DATAQUEST HONG KONG

THE SUPPORT BURDEN



Software Support: Who Carries Whom?

As a global company, you probably have little trouble persuading vendors to sell you software licenses for even the most far-flung outposts of your company. But will those same vendors support all those locations? And with what level of quality?

Although the leading software vendors have done a good job gaining a larger percentage of international business, they are still wrestling with just how to provide better global support. The job today is falling mostly into the hands of a central information technology staff, which needs to stitch together a patchwork strategy, depending on the suppliers, software and locations involved. "Sometimes an IS department assumes responsibility, sometimes a company will make support part of [a purchase agreement] for a large, mission-critical application. In some cases they outsource, and in others they just stick their heads in the sand," said Carter Lusher, vice president and research director for customer service and support strategies at Gartner Group, Inc. in San Jose, Calif.

One company that's definitely got its head above-sand is British-American Tobacco Co. According to Agnes Mak, Hong Kong-based management services manager at the company, taking into account the support requirements of local operations is one of the biggest challenges information systems teams face when putting together standardized, companywide systems. "You need to check whether that vendor has sufficient support available for local operations," said Mak, who has 18 years' experience working in multinational companies around the world.

IBM, for instance, gives an international volume-purchase discount to the head office of a company, which allows its regional operations to purchase their [systems] locally. "That means the local IBM office is winning some business

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RECEIVING IT BY KATHLEEN GOW

Scoring a multinational contract is cause for celebration. But too many firms would rather sweep the after-sales issue under the rug: how to support customers in dozens of locations worldwide. And on the buying end, how do you ensure your software vendor can do the same? Especially as global firms standardize on worldwide systems, they must ensure consistent software support. We explore both sides of the issue below.

Anytime, Anywhere — Noway, Nohow

When a \$7 billion U.S.-based consumer products company needed to build a call center in Europe to handle its customers in Western Europe, Switzerland seemed a natural choice. Because both French and German dialects are spoken there, company officials reasoned it would be easier to staff the 300-person center with speakers of the major European languages.

"The problem was that the Parisians are very sensitive to accents, and they didn't appreciate some Swiss French speaker giving them service," said Carter Lusher, research director for customer service and support strategies at Gartner Group, Inc. in San Jose, Calif. So the firm had to build a second, smaller call center on the outskirts of Paris.

The story, Lusher and other analysts said, perfectly illustrates the double-edged problem global firms face when providing customer service across international boundaries. In order to provide more consistent service as well as cut costs, more and more companies feel compelled to consolidate their call center operations in a handful of locations. Yet such regional solutions may fail to account for local cultural differences that play a critical role in determining how firms should treat their customers.

Plus, some vendors still struggle with how to account for revenue in this support model, said Chris Hjelm, vice president of worldwide revenue and clearance systems at Federal Express Corp. "If I do an enterprise sale out of the U.S., then the U.S. team will get credit for that sale. If they're not allocating that revenue worldwide, then other sites tend not to be as responsive," he said.

Such problems don't crop up solely around questions of call center management. Self-help sites based on the World Wide Web can give remote customers access to critical product data and software patches. But few of these

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PROVIDING IT BY TOM DUFFY



ILLUSTRATIONS BY LARRY GOODE

the
“does anyone
in this company
have any idea
what’s going on?”
solution



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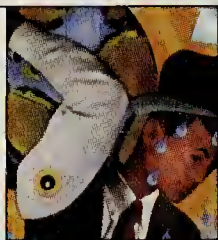
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Solutions for a small planet™

Providing the Right Support



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have yet to be offered in multiple languages, and those that have face difficult translation issues, according to Lusher. It might be OK to use command-oriented language in dialog boxes in English-speaking countries. But the same might not be true in Japan, where language use is more formalized.

WHAT TO WATCH OUT FOR

There are other pitfalls. In some regions, for instance, high tariffs make inventory costs prohibitive, limiting availability of parts, according to Kurt Johnson, an analyst at Meta Group, Inc. in Waltham, Mass.

Currency differences and telecom regulation also complicate global support. In the U.S., customers of Symantec Corp., a U.S.-based PC software vendor, either call a 900 number or pay for phone service with a credit card. But when several countries are involved, the telecom billing structure gets much more complicated — so complicated that Symantec's Amsterdam-based call center, which services all of Europe, has no choice but to give away phone support to its customers.

If a support representative in the Netherlands were to take a call from Germany, for instance, it would be difficult to bill that person in marks using the Netherlands' credit-card processing networks or to figure out how to work with the caller's long-distance provider in Germany to receive payment for pay-per-minute calls. Secondly, on a telecom level, each country has regulations on how much to charge for calls, so deciding on a per-minute price for the calls would be very difficult.

Thirdly, Europeans aren't keen on using their credit cards over the phone for the credit-card billing option. In addition, Symantec would have to accept payment

in guilders, which would involve fluctuating currency exchange rates, and people don't like that, said Arthur Velasquez, product support manager for

Europe, the Middle East and Africa. Despite such obstacles, Velasquez hopes to have these issues ironed out by year's end.

In spite of all the challenges, global firms press forward with sophisticated attempts to provide consistent service across international boundaries. Call center consolidation is perhaps the most obvious trend. Thomas Cook Group Ltd., a London-based financial and travel services company that supplies 30% of the world's travelers checks outside of the U.S., recently consolidated its call centers into a single 240-person one in Peterborough, England. The Global Re-

fund Center serves customers worldwide and operates in 24 languages as diverse as Japanese, Arabic and Thai.

Most Thomas Cook operators are trained to recognize the language being spoken and pass the call along to the appropriate operator, said Tony Ackroyd, the refund center manager. Call details are entered into an Object Design, Inc. database, which the operator can query for details of the original purchase. In the few instances when a caller speaks an unsupported language, such as an African language, Thomas Cook pays to use an AT&T three-way call, with simultaneous interpretation service.

While companies such as Thomas Cook are shutting down call centers, others are improving the ability of diverse centers to share as much data as possible. Hewlett-

Packard Co. is replacing its 10-year-old knowledge-sharing system, which links 34 call centers in 31 countries, with an intranet-based system known as K-Mine. The system serves thousands of HP response center engineers as well as third-party engineers and individual customers, who access it via Netscape Communications Corp. browsers.

The system is based on a Sybase, Inc. database running on HP Unix servers, according to Paul Primmer, support technology lab manager for HP's worldwide customer support operations in Roseville, Calif. Three redundant sys-

tems exist in Singapore, Brussels and Atlanta, with the information shared via a Sybase replication engine.

The new system houses documentation on more than 20,000 parts and products, with detailed diagrams available on about 30% of those parts. It also stores thousands of "solution" documents entered by call center personnel from around the world detailing specific fixes, as well as user notes that field personnel submit in real time via the Web. The system also allows the storage of voice and video.

"The vision is to make knowledge available anytime, anywhere, anyway," Primmer said. "Anytime means that it's available 24-

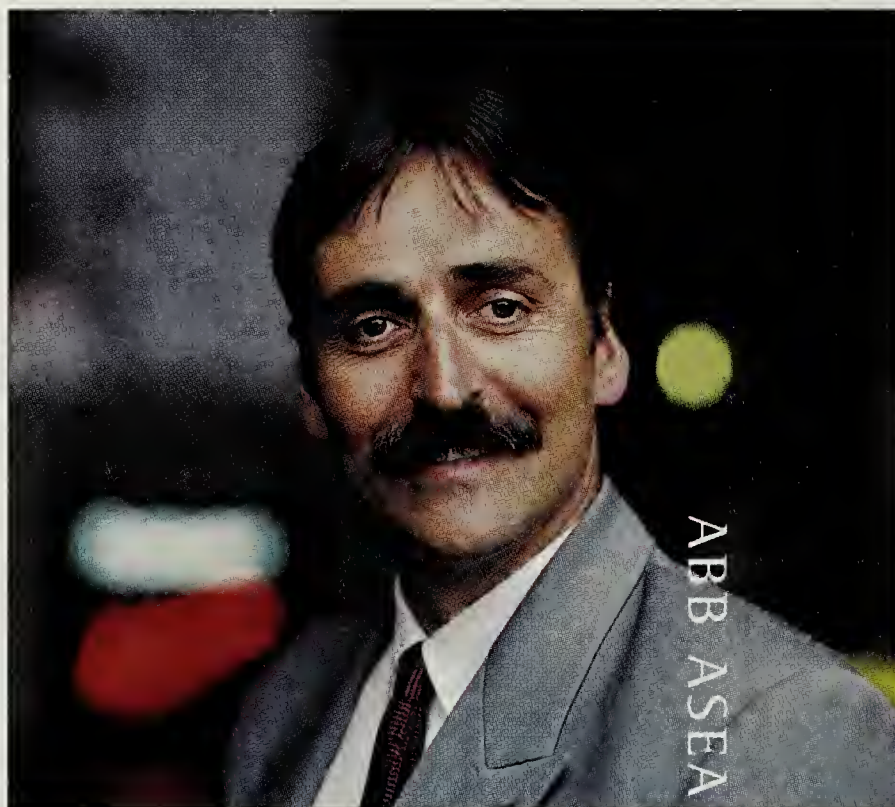


ABB IS MOVING TO Notes 4.5 so customers will be able to access support applications through browsers. "Customers appreciate it when you can be as flexible as possible." WOLFGANG VOGT, ABB product manager for Lotus Notes

ABB ASEA BROWN BOVERI LTD.

by-7 worldwide. It has to be redundant and accessible, even when people are backing it up." To that end, HP runs its own backup utility called Omni Back during off-hours at each of the three locations.

This type of knowledge-sharing system is essential to providing strong global customer service, particularly in remote areas. ABB Asea Brown Boveri Ltd., an engineering/construction conglomerate in Zurich, uses a Lotus Notes-based system extensively to support its customers (see story page 8).

When ABB goes into a grassy field somewhere in the Asia-Pacific to set up a power plant, for example, one of the first things it does is set up a mobile field office. The unit can house PCs, a LAN and a Notes problem tracking system, which communicates to the regional hub via satellite.

This system helps the ABB engineers communicate via phone, fax, E-mail and Notes with the regional support center during site construction. But once construction is over and telecom lines are set up, the LAN and the Notes software get moved inside a regular office in the plant, and the problem resolution application is turned over to the customer. At this point, the customer uses Notes to contact ABB for ongoing support.

At the moment, ABB customers need Notes clients to use the company's customer-support applications. But ABB is moving to Notes 4.5, which incorporates the Domino server capabilities, so customers will be able to access the support applications through browsers.

"Customers appreciate it when you can be as flexible as possible," said Wolfgang Vogt, ABB product manager for Notes.

Part of the challenge of unified customer service is that most companies start out domestically and reach global stature only over a period of years. That almost guarantees that the goal of perfectly homogeneous customer service will remain an elusive Holy Grail.

"Most companies didn't grow up as glob-

HP IS REPLACING ITS 10-year-old customer service system with an intranet-based one that links 34 call centers in 31 countries.

"The vision is to make knowledge available anytime, anywhere, anyway."

PAUL PRIMMER,
support technology lab
manager for worldwide
customer support operations

al organizations," Meta Group's Johnson said. "Now they are trying to retrofit a global front end on top of everything."

TSW International, Inc. in the U.S., for instance, has begun to make the Web an integral part of its customer service operations. With 904 worldwide customers and call centers in Singapore, Australia, Paris, London and Atlanta, the \$50 million maker of asset tracking software recently completed a two-year makeover of its customer service approach, with the goal of increasing efficiency and allowing greater interactivity with users.

"If the customers come to us electronically, we have found those questions are

logged in much more detail than an initial phone call," said Michael T. Nugent, TSW's vice president of worldwide customer service.

The Web-based system, known as Care Net, comprises several customer service modules from Vantive Corp. in Santa Clara, Calif. The applications handle customer support, sales and marketing and a help desk feature, which TSW will be implementing in the next few months.

Customers connect to TSW's home page, housed on HP Unix servers at its Atlanta offices, via the Internet. Once connected to the Vantive applications, they can perform queries ranging from problems with software to questions on new installations. Queries are entered into an Oracle Corp. database, where they are scanned by the Vantive system, which ships a workflow record to the appropriate call center. TSW's call center staffers, running Vantive clients on their desktop, can either reply electronically or call the customer directly.

"A few years ago, we had no one method of communicating with our customers from a database perspective, and we had no way of routing work between full service centers around the world," Nugent said.

The system so far is primarily English language. However, a few pages are available in Spanish. The goal is to eventually have the site be trilingual: English, Spanish and French.

Which just goes to show that as companies and their customers continue to go global, they will continue to live in an imperfect world. "You will always find pockets of inconsistency," Johnson said.

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HEWLETT-PACKARD CO.

Receiving the Right Support



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and [has the incentive] to provide high levels of support locally," Mak said.

Chris Hjelm at Federal Express Corp. agrees this is important. The U.S.-based IT team at the Memphis-based international express mail carrier provides a good deal of support in-house for its globally used Sybase, Inc. database, and it is working to develop and hire expertise in other regions of the world. But it relies on the local Sybase offices for support on an as-needed basis.

"Slower IT growth markets, like Eastern Europe and Latin America, frequently don't have a vendor presence except on a contracted basis," said Hjelm, vice president of worldwide revenue and clearance systems at FedEx. The problem, he said, is that Sybase and other large vendors such as IBM and Hewlett-Packard Co. will in some cases contract out to local providers that are not as responsive because they don't receive revenue credit for the support they provide.

You can address most of those problems by working with your vendors and making sure they understand the implications up front, Hjelm said. For instance, FedEx will sometimes ask to meet with vendors "so they can build a relationship with their regional counterparts and see what issues we're up against," he said.

Another way for subsidiaries to prevent unpleasant surprises in service quality from local resellers is to insist on an audit of the support operation, said Neil Hawthorne, product manager for the Australian operations of J. D. Edwards & Co., a U.S.-based supplier of enterprisewide business applications. "Get them to show you their statistics for resolving problems within [so many hours]. Find out what percentage is resolved locally and what percentage is sent overseas," he said.

Great audit results don't mean you can sit back and relax, though, cautioned Erik Keller, vice president and director of research at Stamford,

Conn.-based Gartner Group, Inc. Service and support is very fluid because it's made up of people, and people are mobile. "A great office now might be gone in six to 12 months," he said.

THE OUTSOURCING OPTION

One company that has chosen, by necessity, to outsource support of its enterprise resource planning application is Swiss chocolate maker Lindt & Sprüngli. The company is upgrading its headquarters of-

fice from SAP AG's R/2 to the R/3 client/server version and has enlisted the services of local consulting firm IMG Consultants, said Lindt spokesman Marcel Ebner. The consultants make extensive use of SAP's software support service, both telephone and online, and queries are typically answered within 15 minutes.

Even with this kind of response, Ebner said, the support picture could be improved by increasing the number of experienced SAP people on the job. The problem is finding them. Around the world, SAP relies on local contractors for implementation and support. Whereas the supply of SAP consultants in the U.S. is now about even with demand, according

to industry recruiters, in Switzerland it is still very difficult "to find the right person with the right experience," Ebner said.

A weekend ad in a German newspaper for experienced SAP engineers familiar with the sales and distribution modules yielded only five responses. Lindt & Sprüngli has not yet decided whether it will roll out R/3 to its offices in the rest of Europe and elsewhere.

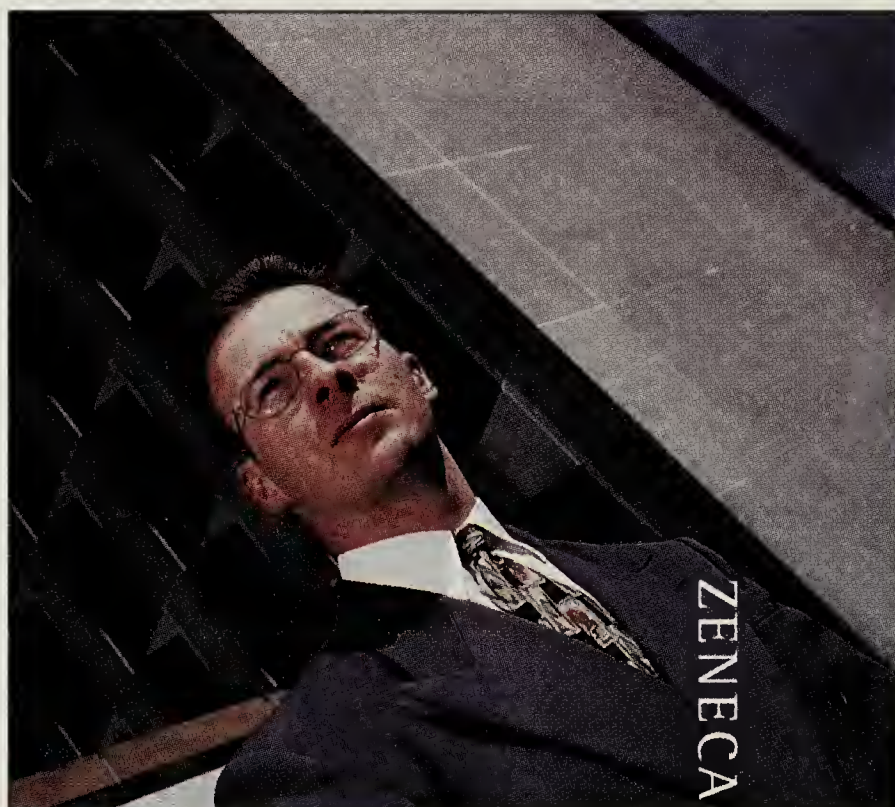
STREAMLINED STRATEGY

Neighbor ABB Asea Brown Boveri Ltd., based in Zurich, addresses the support chal-

lenge by providing its approximately 70,000 worldwide users of Lotus Development Corp.'s Notes with a tiered system that includes Notes. The industrial giant has servers around the world that tie into ABB's five main technical support centers, which act as a clearinghouse for support issues and as liaisons with Lotus.

When support staffers at ABB's local subsidiaries can't handle a Notes question, they use Notes to contact one of the technical hubs in Vasteras, Sweden; Mannheim, Germany; Zurich; Singapore; and Windsor, Conn. If personnel in the hubs can't answer the question, they escalate the problem to the next level — Lotus itself.

In Europe, ABB mainly uses Lotus' "Support via Wire" service, a Notes help-



ZENECA STANDARDIZED on Microsoft for its 15,000 PCs worldwide. However, with operations in more than 100 countries, it had a hard time finding a company capable of supplying software and support on a global basis.

IAN PETTIGREW,
head of IT purchasing

desk-type application. In other areas, they contact Lotus by electronic mail or phone.

By reducing the points of contact with Lotus down to the five hubs, ABB has tried to keep communications streamlined. "We do it for efficiency," said Wolfgang Vogt, ABB product manager for Notes. He added that it helps prevent different businesses around the world from calling Lotus about the same problems. In fact, there aren't too many vendors in the world that can handle support of ABB's basic data and communications applications and infrastructure on a worldwide basis.

"You have to look at which outsourcers have a mature enough infrastructure to offer support on a worldwide basis," he said.

Another model that has been gaining acceptance in North America during the past several years is to outsource global support to one or more third-party distributors, said Tom Sweeny, director and principal analyst for software services at Dataquest, Inc. in Westboro, Mass. The user company may still negotiate its software license with the software vendor directly but then hand over the global contract to a third-party supplier. The supplier acts as middleman between the software vendor and the user, often providing distribution, support and invoicing. This gives the user a large discount, simplifies administration of licenses and keeps local users happy.

This is how American Home Products Corp. in Madison, N.J., handles global support for both Novell, Inc. NetWare and Microsoft Corp. Office applications in the 145 countries in which it operates. American Home Products, a pharmaceutical and agricultural products company, negotiated the agreements directly with the vendors for both purchasing and maintenance, but fulfillment of the agreement is handled exclusively by Philadelphia-based Softmart, Inc., an international supplier of software and services.

American Home Products prefers this method of handling support, said Joe Vil-



FEDEX MEETS WITH
its biggest software
vendors throughout
the world "so they
can build a relationship
with their regional
counterparts."

CHRIS HJELM,
vice president of worldwide
revenue and clearance systems

lano, director of corporate technologies, "because there are so many different vendors you end up having to deal with. The administrative burden is that much easier."

SUPPORT FOR 100 COUNTRIES

Increasingly, this model is being adopted in European markets as well. Soon after its spin-off from Imperial Chemical Industries PLC in 1993, London-based Zeneca Ltd. decided to standardize on Microsoft desktop applications for its approximately 15,000 PCs worldwide. This standardization would not only simplify communications among divisions but also allow Zeneca to strike a better deal, said Ian Pettigrew, head of IT purchasing at the pharmaceutical and agrochemical firm.

Microsoft offered the company "a complex but attractive deal" called a Global Enterprise Agreement, Pettigrew said, whereby Zeneca would work through a single

third-party supplier in exchange for a quantity discount. With Zeneca operating in over 100 countries, though, there were few companies capable of supplying software and support on a global basis, he said. He eventually chose London-based ICL, a member of the Fujitsu group of companies, to act as the third-party supplier of Microsoft's Office Professional suite and Back Office.

Zeneca's only concern over the service capability of ICL, which operates in more than

80 countries, lay in the U.S., where the international IT systems and services company eventually partnered with ASAP Software Express, Inc., a Buffalo Grove, Ill.-based distributor. Under the agreement, ICL handles software distribution and support, invoicing and collection locally with each of the companies. Microsoft delivers software upgrades in CD-ROM format to ICL every 45 days, which ensures that each of Zeneca's participating companies receives them. Additionally, ICL sends a monthly report to Zeneca headquarters with an up-to-date picture of who is using what.

For group IS manager Derek Newman, there are multiple benefits: In addition to the substantial purchase savings, "It also means we don't have to deal with a whole raft of suppliers. Because we are getting statistics back from ICL, we have a good picture of what is happening around the world, and we get a standardized approach."

Zeneca units are allowed to decide when and how they will adopt the standard Microsoft product set, although a sliding discount encourages a wholesale change sooner rather than later.

Another potential benefit of handling support in this manner, Dataquest's Sweeny suggested, is that customers may actually get more comprehensive support. "By leveraging their economies of scale and making investments in multiple vendors' product, the direct service providers have built a highly skilled work force that is in many cases as proficient as the vendors in

Please turn to next page

Receiving the Right Support



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supporting specific technologies and perhaps more proficient when it comes to supporting multiple technologies."

Across the enterprise, the most common response to global software support still seems to be a hybrid strategy based on the type of software, the needs of the company and the maturity of geographic markets.

"What's needed to support desktop products like Microsoft Office, for instance, is considerably simpler than what's needed to support [enterprise resource planning] applications such as SAP or Oracle that have been heavily customized," Gartner's Lusher said. "There is no particular trend," he added, "because there is no perfect method."

The Benetton Group, run out of a castle near Venice in Ponzano, Italy, uses just such a hybrid strategy. A mix of locally supported office applications and business management applications, maintained centrally and combined with a worldwide data network outsourced to General Electric Information Services Co., has allowed Benetton executives to build the company into the envy of apparel retailers across the globe.

Tying headquarters to its Italian plants and offices in 31 countries is a custom-developed, client/server business management system that offers purchase order, inventory and client information exchange. The clothing franchise supports this mission-critical application centrally with a hot line manned by only three people, according to Bruno Zuccaro, vice president of IS. Because the hot line operates from 8 a.m. to 7 p.m., local Italian time, time-zone differences occasionally present a problem for Benetton's dispersed offices around the world, he conceded. All office and accounting applications are supported local-

ly, though, by whomever the local affiliates choose: vendor, value-added reseller or consultant.

Keeping accounting applications local is important, Zuccaro said, because accounting regulations differ from country to country. In the world of the virtual corporation, the more administration and support that can be off-loaded from central headquarters, the better, he said. "The local offices know which suppliers offer good service, so we leave it up to them."

- CONSULT A TASK FORCE from IT divisions around the world before selecting global software standards.
- CHOOSE MARKET-LEADING vendors with a worldwide presence.
- CHOOSE SUPPLIERS with a variety of support channels, including Internet sites and virtual hot lines that can be routed around the world.
- ASK LOCAL VENDOR reps or third-party partners for an audit of their support operation, including response time for problem resolution.
- ENSURE THE LEVEL of support you'll get is as high as you're promising customers.
- IF YOU PLAN ON ADDING your own global "enhancements" to packaged software, first ensure your vendor can support it.
- FOR PARTICULARLY challenging support locations, have your software vendor or supplier meet you there to establish relationships with local providers and see what you're up against.
- PROACTIVELY MANAGE local vendor support to ensure that the local provider has a monetary incentive to be responsive.
- MAKE SURE YOU HAVE at least one contact well versed in software contracts and services who will be available to consult with your global offices.
- EASE ADMINISTRATION and purchase costs by consolidating software support via an international software distributor.

CUSTOMER SERVICE TIPS

Companies that intend to add their own global enhancements to standardized packages should first ensure their vendors can support them. Ensuring all subsidiaries are using the same release level is another issue raised by enterprisewide implementations. Typically, it means global companies will lag six to 12 months behind the general community in terms of release levels, J. D. Edwards' Hawthorne said.

"Multinationals tend to be a bit slower in migrating because of the extra time needed to take modifications to the next level and roll them out," he said.

Another important element to ensuring that software can be supported consistently around the world is to ensure your selection process is global. British-American Tobacco's Mak advises companies instituting global information systems to first put together a task force of representatives from geographically dispersed operating divisions to discuss plans.

Above all, AHP's Villano cautioned, don't overlook local business requirements in your drive for consistent global support. For instance, the economics of a certain business may not lend itself to costly upgrades. Or certain locations with a high priority on other projects may not have available staffing.

"You'll never be 100% consistent globally," he said. "What's important is to standardize and to know how to work around the differences in software versions so it doesn't get in the way of doing business."

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Cementing Relations With a Host Country

IT IS CENTER STAGE IN FORMING A HEALTHY BOND WITH LOCAL GOVERNMENT

BY EDWARD MOZLEY ROCHE

Examining the role of IT in multinational corporations is key to understanding the world economy. Consider that multinationals today account for the bulk of world trade. And if you took 3% to 5% of the total annual revenues of the Top 2,000 multinationals, you'd get a good estimate of worldwide IT expenditures.

Although these global networks of computer centers represent some of the most expensive and complex technology ever built, it is not entirely clear what they really do.

I have identified five major themes of international business theory that can be shown to have a direct relationship with IT. What follows is one of the more intriguing of these: The relationship between the host country and the multinational.

Consider the following scenarios: American Express finds it must build separate data processing facilities in certain European countries to meet privacy regulations. Ford finds it is unable to use the newest front-end communications processor for its IBM mainframes in Brazil because they are not licensed by the government — and are unlikely to be because there is a “substantially equivalent” Brazilian product. The Swedish Parliament debates the national security risk of having the Malmo firehouse connected to computers in Cleveland. Potential investors in India are told indirectly that the number of data processing jobs they transfer to that country will be a factor in whether the investment will be approved by the government.

These are all examples of how government/multinational relations can spill over into the realm of IT. It has long been argued, for example, that some nations have used privacy regulations and other data processing controls as nontariff barriers to international trade.

There are many factors — political, economic and cultural — that determine the balance of power between the multinational and the host country. Some, however, see technology as the key driver. For instance, government restrictions can be targeted against international computer



networking and the equipment needed to support it. The regulation of trans-border data flow is a major breeding ground for conflict.

THE LABOR PROBLEM

Host country/multinational relationships can also change the international division of labor. Some observers, for example, view computerization as an opportunity to exploit developing countries.

Governments may impose restrictions — on hardware and software availability, networking and the use of applications, for instance — to alleviate the labor problem. They can subject computer imports to high tariffs and fees or quantitative restrictions, and the host country may emphasize use

of local programming skills as it denies work visas to employees from headquarters. Governments may restrict international database access to force the multinational to build a duplicate database inside the host country. They may use prohibition against private networks to force the multinational to use more expensive volume-sensitive services in order to subsidize an inefficient national bureaucracy. They may enforce onerous database maintenance requirements under criminal and civil penalties in the name of protecting individual privacy. Lastly, they may make stipulations that the multinational operate data centers within the host country, regardless of economic considerations.

There is no apparent limit to interference in international computer networking, but some states also work their policy in the opposite direction. In these cases, state-generated enhancement of telecommunications infrastructure is used to tip the balance in favor of foreign direct investment. States may also engage in accelerated training as another way to improve factor endowments.

IT'S A PEOPLE ISSUE, TOO

It is easy to imagine how the management and technical challenges imposed by host country/multinational conflicts could place the IS function center stage in developing a national (“local”) business strategy. We can see the disastrous results when multinationals choose the wrong people to handle host government matters and are subjected to a variety of government-imposed restrictions such as bureaucratic delays, additional restrictions or prohibitive taxes.

We need to learn more about how managers can prepare to cope with these host environments as they proceed to hire and train appropriate staff and adjust system development efforts to boost sensitivity to host government concerns.

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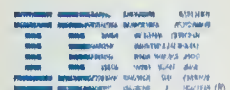
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